

# ENVIRONMENTAL QUALITY AS A PUBLIC GOOD

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19 PEC 012

# What is a Public Good?

A public good is a product that one individual can consume without reducing its availability to others and from which no one is deprived. Examples of public goods include law enforcement, national defense, sewer systems, and public parks. As those examples reveal, public goods are almost always publicly financed. Individuals cannot be excluded from use or could be enjoyed without paying for it, and where use by one individual does not reduce availability to others or the goods can be effectively consumed simultaneously by more than one person.

# Public good vs Private Good

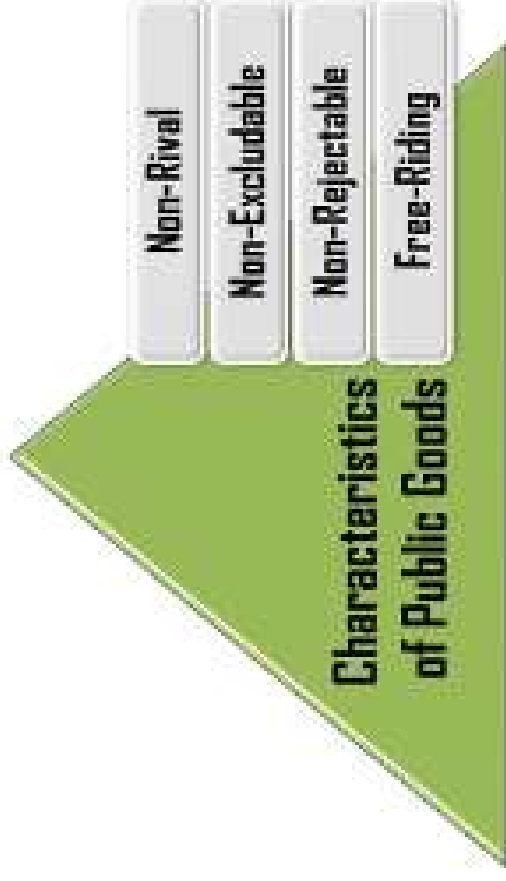
BASIS	PUBLIC GOODS	PRIVATE GOODS
Meaning	Public goods are the ones which are provided by the nature or the government for free use by the public.	Private goods are the ones which are manufactured and sold by the private companies to satisfy the consumer needs and wants.
Provider	Nature or government	Manufacturers i.e. entrepreneurs
Consumer equality	Rich and poor are treated equally	Preference to rich consumers
Availability	Readily available to all	Reduces with each consumption
Quality	Remains constant	Varies with ability to buy
Decision	Social choice	Consumer's decision
Objective	Overall growth and development	Profit earning

BASIS	PUBLIC GOODS	PRIVATE GOODS
Traded in Free Market	No	Yes
Opportunity Cost	No	Yes
Free riders problem	Yes	No
Rivalry	Non-rival	Rival
Excludability	Non-excludable	Excludable
Demand Curve	Horizontal	Vertical
Examples	Police service, fire brigade, national defense, public transport, roads, dams and river	Clothes, cosmetics, footwear, cars, electronic products and food

# Characteristics of a Public Good

A public good has following key characteristics. These characteristics make it difficult for market producers to sell the good to individual consumers.

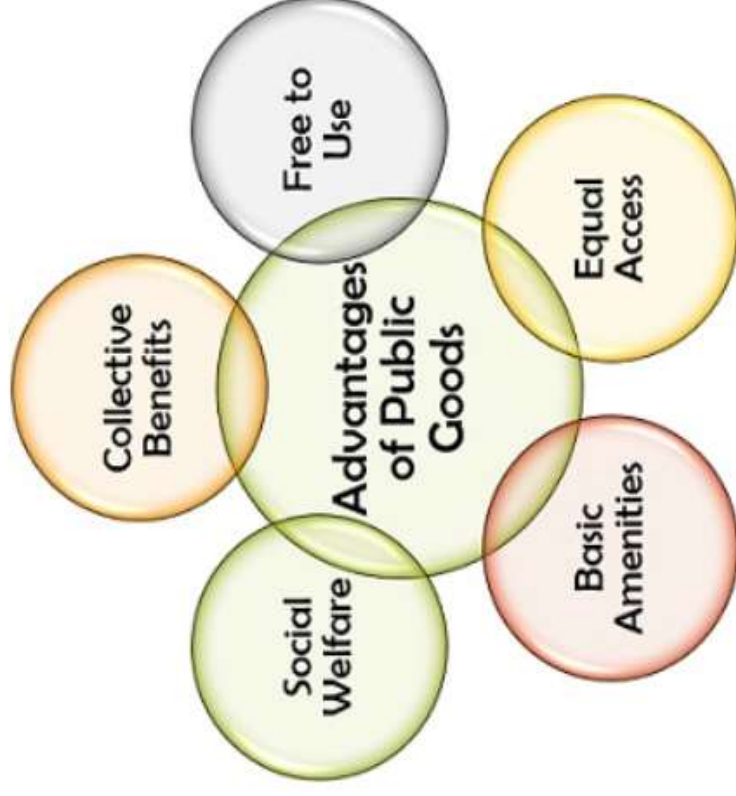
- **Non-rivalrous** means one person's use of it doesn't diminish the ability of other people to use it.
- **Non-excludable** means that it is costly or impossible for one user to exclude others from using a good.
- **Non-Rejectable** means the consumption of such goods cannot be dismissed or unaccepted by the public since it is available collectively to all the people.
- **Free-Riding** means the goods categorized under public goods benefit even those who have not paid for it. Such people are termed as free-riders.



# Types of Goods

	Excludable	Non-excludable
Rival	<b>Private Goods</b> e.g. ice cream, cheese, houses, cars	<b>Common Resources</b> e.g. fresh water, fish, timber, pasture
Non-rival	<b>Club Goods</b> e.g. cable television, cinemas, wifi, tollroads	<b>Public Goods</b> e.g. fresh air, knowledge, national defense

# Advantages of Public Goods



# Environmental Quality as a Public Good

- Environmental quality is a set of properties and characteristics of the environment with respect to which it measures the condition of an environment relative to the requirements of one or more species and or to any human need or purpose. Environmental quality is a general term which can refer to varied characteristics that relate to the natural environment as well as the built environment, such as air and water purity or pollution, noise and the potential effects which such characteristics may have on physical and mental health caused by human activities.
- The degree to which the naturally occurring resources of the planet (land, air, water, etc.) are free of artificial impurities or waste products generated by human activity.

# Environmental Quality as a Public Good in Economic Sense

- The environmental quality can be defined as 'level and competition of the stream of all environmental services, except the waste receptor services'. In principle, environmental quality can be measured in terms of the value the people place on these non-waste receptor services or the willingness to pay.
- Due to the imperfect market system for environmental quality, no one can fix a price on it. Environmental quality is definitely a consumption public good as it possesses the basic characteristic feature of a public good namely, 'non excludability and non-rivalry'.



# FORMS OF ENVIRONMENTAL QUALITY

AIR

WATER

FOREST

LAND

# ENVIRONMENT AND MARKET FAILURE

- A market failure occurs when the market does not allocate scarce resources to generate the greatest social welfare.
- Common forms of market failure include externalities and information asymmetry.
- An externality exists when a person makes a choice that affects other people in a way that is not accounted for in the market price. An externality can be positive or negative, but is usually associated with negative externalities in environmental economics.
- A firm emitting pollution will typically not take into account the costs that its pollution imposes on others.
- In economic terminology, externalities are examples of market failures, in which the unfettered market does not lead to an efficient outcome.

# DEMAND AND SUPPLY

- Ecosystem services of nature are independent of the environmental market. Nature will continue with its provision of ecosystem goods and services of waste treatment, climate control, biological control, water regulation, pollination, food production, soil formation, nutrient cycling and other functions, unless disturbed by extreme external forces or stimuli.
- This makes prices essentially demand-determined. Unfortunately, the entire problem is with the demand function of environmental services. No doubt, the crucial problem here lies with knowledge. In sum, unless there is adequate information about the environment and ecosystem, it is not possible for markets to discover right prices.

# SOLUTIONS →

- Stricter Rules and Regulations
- Better Taxation System
- Green Bonds
- Efficient Environmental Agencies
- General Awareness

Green bonds are designated bonds intended to encourage sustainability and to support climate-related or other types of special environmental projects. More specifically, green bonds finance projects aimed at energy efficiency, pollution prevention, sustainable agriculture, fishery and forestry, the protection of aquatic and terrestrial ecosystems, clean transportation, sustainable water management and the cultivation of environmentally friendly technologies.

REMEMBER!!

*Every challenge to the environment becomes a challenge to the livelihood of each one of us!*

**Thank You! 😊**



Instead, public goods have two defining characteristics: they are nonexcludable and nonrivalrous. The first characteristic, that a public good is *nonexcludable*, means that it is costly or impossible to exclude someone from using the good. If Larry buys a private good like a piece of pizza, then he can exclude others, like Lorna, from eating that pizza. However, if national defense is being provided, then it includes everyone. Even if you strongly disagree with America's defense policies or with the level of defense spending, the national defense still protects you. You cannot choose to be unprotected, and national defense cannot protect everyone else and exclude you.



The second main characteristic of a public good—that it is *nonrivalrous*—means that when one person uses the public good, another can also use it. With a private good like pizza, if Max is eating the pizza, then Michelle cannot also eat it—it—the two people are rivals in consumption. With a public good like national defense, Max's consumption of national defense does not reduce the amount left for Michelle, so they are nonrivalrous in this area.

A number of government services are examples of public goods. For instance, it would not be easy to provide fire and police service so that some people in a neighborhood would be protected from the burning and burglary of their property, while others would not be protected at all. Protecting some necessarily means protecting others, too.

Some public goods also have a mixture of public provision at no charge along with fees for some purposes. A public city park that is free to use but charges a government fee for parking your car, for reserving certain picnic grounds, and for food sold at a refreshment stand would be an example of this.

# Public good vs private good

- Public goods are those which are free to use and therefore there is no cost involved in usage of such products whereas for private product one has to pay in order to use them.
- Examples of public goods are air, roads, street lights and so on whereas examples of private goods are cars, cloths, furniture and so on.
- While usage of public products does not reduce its availability for other people so it is not like if one person is breathing fresh air the other individuals won't get fresh air. This is not the case with private products because its usage leads to reduction in quantity or quality for others, so if one person has bought particular cloth it is not necessary that others will also be able to get same color, quality and texture of that cloth.
- Public goods are same for everybody so individual who is rich will also breathe the same air which a poor person is breathing whereas in case of private products if one is rich one can buy better quality so if there are two televisions one is 3d which is expensive and other is normal which is cheap than a person who is rich will go for 3d television while person who is not that rich will buy normal television.
- Public goods are either provided by nature or government whereas private goods are provided or manufactured by entrepreneurs who make them in order to earn profit.